

IN THE CLAIMS

- 1 (Original). An apparatus comprising:
a key generator for generating a key according to an identifier value of another apparatus; and
a reorderer for reordering blocks of an original content item according to the key.
- 2 (Original). The apparatus of claim 1 further comprising:
a transmitter adapted for distributing the reordered blocks over a wireless broadcast channel.
- 3 (Original). The apparatus of claim 1 further comprising:
a transmitter adapted for distributing the reordered blocks over a coaxial cable.
- 4 (Original). The apparatus of claim 1 further comprising:
a transmitter adapted for distributing the reordered blocks over a digital subscriber line (DSL).
- 5 (Original). The apparatus of claim 1 further comprising:
means for writing the reordered blocks to a removable storage disc.
- 6 (Original). The apparatus of claim 1 further comprising:
storage means for storing the reordered blocks.
- 7 (Original). The apparatus of claim 1 wherein each of the reordered blocks comprises a same data content as its corresponding block from the original content item.
- 8 (Original). The apparatus of claim 1 wherein the reordered blocks are of a uniform block size.

9 (Original). The apparatus of claim 1 wherein the reordered blocks include a first reordered block of a first block size and a second reordered block of a second block size which is different than the first block size.

10 (Original). The apparatus of claim 1 further comprising:
means for keeping a list of identifier values of a plurality of such other apparatuses;
wherein, for different identifier values of two such other apparatuses, the key generator generates different keys; and
wherein, in response to the different keys, the reorderer imposes different new block orders on the original content item.

11 (Original). The apparatus of claim 10 wherein:
the identifier values in the list are mutually unique; and
the reorderer imposes a unique new block order on the original content item for each such other apparatus.

12 (Original). The apparatus of claim 10 wherein:
the list includes a first identifier value for a first such other apparatus, and a second identifier value for both a second and a third such other apparatus, wherein the second identifier value is different than the first identifier value; and
the reorderer imposes a first new block order on the original content item for distribution to the first such other apparatus, and a second, different new block order on the original content item for distribution to either the second or the third such other apparatus.

13 (Original). The apparatus of claim 1 wherein the identifier value is a serial number of the other apparatus.

14 (Original). The apparatus of claim 1 wherein the identifier value is a random number assigned to the other apparatus.

15 (Original). The apparatus of claim 14 wherein the random number has been filtered for primeness and been found to be likely to be prime beyond a predetermined threshold.

16 (Original). The apparatus of claim 15 wherein the random number is a prime number.

17 (Original). The apparatus of claim 1 wherein:

the apparatus is a server, the other apparatus is one of a plurality of clients, and the server further comprises,

means for provisioning the clients, including the selection of the identifier values for the clients, and

means for maintaining a list of the clients' identifier values.

18 (Original). The apparatus of claim 1 wherein the identifier value comprises a session key.

19 (Original). The apparatus of claim 1 further comprising:

a transmitter for communicating over a key channel and a content channel.

20 (Original). The apparatus of claim 19 wherein the key channel and the content channel are logical channels operating over a same physical medium.

21 (Original). The apparatus of claim 1 wherein the original content item comprises an electronic programming guide.

22 (Original). The apparatus of claim 1 wherein the original content item comprises ATVEF information.

23 (Original). The apparatus of claim 1 wherein the original content item comprises a digital gift certificate.

24 (Original). The apparatus of claim 1 wherein the original content item comprises a digital coupon.

25 (Original). The apparatus of claim 1 wherein the original content item comprises a movie.

26 (Original). The apparatus of claim 1 wherein the original content item comprises an episode of a television show.

27 (Original). The apparatus of claim 1 wherein:
the apparatus further comprises a storage device; and
the reorderer reorders blocks of the original content item and stores them to the storage device according to a logical addressing system of the apparatus.

28 (Original). The apparatus of claim 1 wherein:
the apparatus further comprises a storage device; and
the reorderer reorders blocks of the original content item by directly manipulating physical addresses at which the blocks are stored to the storage device.

29 (Withdrawn). An apparatus comprising:
storage for a local key;
storage for a block reordering structure;
a reorder structure generator for generating the block reordering structure according to the local key; and
a content retriever for retrieving blocks of a content item in an original order according to the block reordering structure.

30 (Withdrawn). The apparatus of claim 29 further comprising:
a storage device for receiving and storing a reordered content item from an external source.

31 (Withdrawn). The apparatus of claim 30 wherein the content retriever is adapted for retrieving the blocks in only sequential, linear order.

32 (Withdrawn). The apparatus of claim 30 wherein the content retriever is adapted for retrieving the blocks in random order.

33 (Withdrawn). The apparatus of claim 30 wherein the storage for the block reordering structure is a protected memory.

34 (Withdrawn). The apparatus of claim 33 wherein the protected memory is logically protected by an operating system of the apparatus.

35 (Withdrawn). The apparatus of claim 34 wherein the protected memory is physically protected against tampering.

36 (Withdrawn). The apparatus of claim 33 wherein the protected memory comprises means for preventing physical access to electrical signals and devices in the protected memory.

37 (Withdrawn). The apparatus of claim 30 wherein the block reordering structure comprises:

a plurality of entries, each entry correlating, for a respective original content block, a sequential order placement of that block in the content item with a sequential order placement of that block in a block-reordered version of the content item.

38 (Withdrawn). The apparatus of claim 37 wherein the plurality of entries comprises a linked list.

39 (Withdrawn). The apparatus of claim 37 wherein the plurality of entries comprises a table.

40 (Withdrawn). The apparatus of claim 30 wherein the reorder structure represents a logical addressing reordering of the blocks.

41 (Withdrawn). The apparatus of claim 30 wherein the reorder structure represents a physical addressing reordering of the blocks.

42 (Withdrawn). The apparatus of claim 30 further comprising means for receiving the content item in a reordered order from a distribution channel.

43 (Withdrawn). The apparatus of claim 42 wherein the distribution channel comprises a wireless broadcast channel.

44 (Withdrawn). The apparatus of claim 42 wherein the distribution channel comprises a coaxial cable.

45 (Withdrawn). The apparatus of claim 42 wherein the distribution channel comprises a digital subscriber line.

46 (Withdrawn). The apparatus of claim 42 wherein the distribution channel comprises a removable disk drive.

47 (Withdrawn). The apparatus of claim 30 wherein the reordered blocks retrieved by the content retriever are unencrypted copies of blocks of an original content item.

48 (Withdrawn). The apparatus of claim 30 wherein the blocks include a first block and a second block of a same block size.

49 (Withdrawn). The apparatus of claim 30 wherein the blocks include a first block and a second block of different block sizes.

50 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises an electronic programming guide.

51 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises ATVEF information.

52 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises a digital gift certificate.

53 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises an electronic coupon.

54 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises a movie.

55 (Withdrawn). The apparatus of claim 30 wherein the reordered content item comprises an episode of a television show.

56 (Original). An apparatus comprising:
a server including,
a stored copy of a client identifier;
a key generator for generating a reordering key according to the copy of the client identifier, and
means for transmitting a content item to a client in a reordered block format according to the reordering key; and
the client including,
the client identifier,
client storage for storing the reordered block format content item, and
means for accessing the content item from the client storage in an original block order.

57 (Original). The apparatus of claim 56 wherein the server and the client are adapted to transfer the reordered block format content item over a wireless broadcast channel.

58 (Original). The apparatus of claim 56 wherein the server and the client are adapted to transfer the reordered block format content item over a coaxial television cable.

59 (Original). The apparatus of claim 56 wherein the server and the client are adapted to transfer the reordered block format content item over a digital subscriber line.

60 (Original). The apparatus of claim 56 wherein corresponding respective blocks of the content item in its original block order and reordered block format contain substantially identical data values.

61 (Original). The apparatus of claim 56 wherein the content item comprises a plurality of blocks, each of a same block size.

62 (Original). The apparatus of claim 56 wherein the content item comprises a plurality of blocks of variable block size.

63 (Original). The apparatus of claim 56 wherein:
the apparatus further comprises a plurality of such clients;
the server maintains a list of respective client identifiers for the plurality of such clients;
the key generator generates a unique key for each such client; and
for each of two or more clients receiving the reordered block format content item, the means for transmitting generates a uniquely reordered block format content item.

64 (Original). The apparatus of claim 56 further comprising:
two or more distinct pluralities of such clients;
a plurality of such servers, each in communication with a respective distinct plurality of such clients; and

each respective server's means for transmitting being configured to reorder blocks of the content item in an order which is reorderable only by the plurality of clients with which that respective server is in communication.

65 (Original). The apparatus of claim 56 wherein the client identifier is a serial number.

66 (Original). The apparatus of claim 56 wherein the client identifier is a random number.

67 (Original). The apparatus of claim 66 wherein the random number is likely to be prime.

68 (Original). The apparatus of claim 66 wherein the random number is prime.

69 (Original). The apparatus of claim 56 further comprising:
a key channel for communicating the key between the client and the server ; and
a content channel for communicating the content between the server and the client.

70 (Original). The apparatus of claim 69 wherein the key channel and the content channel are logical channels carried over one physical communication medium.

71 (Original). The apparatus of claim 56 wherein the content item comprises an electronic programming guide.

72 (Original). The apparatus of claim 56 wherein the content item comprises ATVEF information.

73 (Original). The apparatus of claim 56 wherein the content item comprises a digital gift certificate.

74 (Original). The apparatus of claim 56 wherein the content item comprises an electronic coupon.

75 (Original). The apparatus of claim 56 wherein the content item comprises a movie.

76 (Original). The apparatus of claim 56 wherein the content item comprises an episode of a television show.

77 (Withdrawn). A cable set-top box comprising:
protected memory which is adapted for storing,
a substantially unique identifier value,
a local key, and
a block reordering structure;
a storage device which is adapted for storing a reordered content item;
a reorder structure generator adapted to create the block reordering structure according to the local key; and
a content retriever adapted to fetch blocks of the reordered content item according to the block reordering structure.

78 (Withdrawn). The cable set-top box of claim 77 wherein:
the reordered content item is a first reordered content item and the storage device is further for storing a second reordered content item;
the first reordered content item comprises an electronic programming guide; and
the second reordered content item is a video content item.

79 (Original). A method of transmitting an original content item from a first entity to a second entity which has an identifier value, comprising:
generating a key as a function of the identifier value;
reordering blocks of the original content item as a function of the key, to create a reordered content item;
delivering the reordered content item to the second entity;

creating a block reordering structure within the second entity; and
accessing a block of the original content item by retrieving it from the reordered
content item according to the block reordering structure.

80 (Original). The method of claim 79 further comprising:
generating a local key within the second entity, in response to which the block
reordering structure is created.

81 (Original). The method of claim 80 wherein the second entity generates the local key
according to the identifier value of the second entity.

82 (Withdrawn). A method of protecting an original content item which has blocks
in an original order, comprising:
reordering blocks of the original content item in a new order which is different
than the original order, according to an identifier value of an intended recipient; and
writing the reordered blocks to either storage or a communication channel in the
new order.

83 (Withdrawn). The method of claim 82 wherein the intended recipient comprises a
set-top box and the identifier value comprises a serial number of the set-top box.

84 (Withdrawn). The method of claim 83 further comprising a server maintaining a
list of respective serial numbers of a plurality of set-top boxes.

85 (Withdrawn). The method of claim 84 further comprising the server reordering
and writing the blocks in a unique order for each of two or more of the set-top boxes which have
unique serial numbers.

86 (Withdrawn). A method of accessing a content item by an intended recipient having an identifier value, wherein the content item includes a block having an original order position and a new order position which is different than the original order position, the method comprising:

storing an identification of a relationship between the original order position and the new order position of the block; and

accessing the block by using the stored relationship identification to retrieve the block from the new order position in response to a request to retrieve it from the original order position.

87 (Withdrawn). The method of claim 86 wherein the intended recipient is a set-top box and the method further comprises generating the identification of the relationship according to an identifying value of the set-top box.

88 (Withdrawn). The method of claim 87 wherein the identifying value comprises a serial number.

89 (Withdrawn). The method of claim 87 wherein the identifying value comprises a random number.

90 (Withdrawn). The method of claim 87 wherein the identifying value comprises a session key.

91 (Original). A recordable medium having recorded thereon a reordered content item resulting from the process comprising:

generating a key in response to an identifier value of a content retrieval entity; and

reordering, as controlled by the key, blocks of an original content item to create the reordered content item.

92 (Original). The recordable medium of claim 91 wherein the reordered content item results from the process further comprising:

the process being performed in a server, and the content retrieval entity being one of a plurality of clients connectable to the server; and

the server maintaining a list of respective identifier values of the clients.

93 (Original). The recordable medium of claim 92 wherein the reordered content item results from the process further comprising:

the server creating the respective identifier values of the clients to be mutually unique.

94 (Original). The recordable medium of claim 93 wherein the reordered content item results from the process further comprising:

the server creating the respective identifier values of the clients as serial numbers.

95 (Original). The recordable medium of claim 93 wherein the reordered content item results from the process further comprising:

the server creating the respective identifier values of the clients as random numbers.

96 (Original). The recordable medium of claim 95 wherein the reordered content item results from the process further comprising:

the server checking the random numbers for at least a threshold likelihood of primeness.